

REMARKS/ARGUMENTS

Favorable consideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-6 and 8-12 are presently pending in this application, Claims 7 and 13-15 having been canceled, Claims 1, 3-6 and 8-12 having been amended by the present amendment.

In the outstanding Office Action, Claim 7 was objected to because of informalities; Claims 1-6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Takeuchi (U.S. Patent 3,991,254) in view of Iseli et al. (U.S. Patent 4,503,128) and Clough et al. (U.S. Patent 5,326,633); and Claims 7-15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Takeuchi in view of Iseli et al. and Clough et al., and further in view of Lange et al. (U.S. Patent 4,166,147).

Claims 1, 3-6 and 8-12 have been amended herein. These claim amendments are believed to find support in the specification, claims and drawings as originally filed. If, however, the Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work in a joint effort to derive mutually satisfactory claim language.

Before addressing the outstanding rejection based on the cited references, a brief review of Claim 1 as currently amended is believed to be helpful. Claim 1 is directed to a filter for the purification of an exhaust gas and recites: "a porous ceramic carrier configured to filter particulates in an exhaust gas; and a catalyst coat layer comprising at least one oxide ceramic and a catalyst active component and coating the porous ceramic carrier, the catalyst coat layer further comprising a first substance having a thermal conductivity higher than the oxide ceramic, a second substance having a refractive index larger than a refractive index of the oxide ceramic, or a colored pigment, wherein the porous ceramic carrier has a porosity of 40-80% and a thermal conductivity of a filter body comprising the porous ceramic carrier and

the catalyst coat layer is set to be 0.3-60 W/mk.” By providing such a catalyst coat layer, the filter has an even thermal conductivity throughout the porous ceramic carrier, even if the porosity and/or pore density of the porous ceramic carrier are not consistent.

First, Takeuchi is directed to a high temperature insulating structure, and does not teach or suggest “a catalyst coat layer comprising at least one oxide ceramic and a catalyst active component and coating the porous ceramic carrier, the catalyst coat layer further comprising a first substance having a thermal conductivity higher than the oxide ceramic, a second substance having a refractive index larger than a refractive index of the oxide ceramic, or a colored pigment, wherein the porous ceramic carrier has a porosity of 40-80% and a thermal conductivity of a filter body comprising the porous ceramic carrier and the catalyst coat layer is set to be 0.3-60 W/mk.” On the other hand, Takeuchi describes an insulating layer (c) disposed in a space formed between the inner wall and outer wall of a double structure such as one formed by an outer container encasing a catalyst device. Therefore, the structure recited in Claim 1 is clearly distinguishable from Takeuchi.

Iseli et al. and Clough et al. are directed to a thermally sprayable ceramic and a coated substrate. Nevertheless, neither Iseli et al. nor Clough et al. teaches or suggests “a catalyst coat layer comprising at least one oxide ceramic and a catalyst active component and coating the porous ceramic carrier, the catalyst coat layer further comprising a first substance having a thermal conductivity higher than the oxide ceramic, a second substance having a refractive index larger than a refractive index of the oxide ceramic, or a colored pigment, wherein the porous ceramic carrier has a porosity of 40-80% and a thermal conductivity of a filter body comprising the porous ceramic carrier and the catalyst coat layer is set to be 0.3-60 W/mk” as recited in amended Claim 1. Iseli et al. simply describes a method in which a cordierite is thermally spayed by flame or plasma onto certain components to withstand mechanical, thermal and abrasive conditions. Furthermore, according to Iseli et al., the coating provides a

porosity of only up to 40 volume %, which is believed to be still too low for a filter. Also, Clough et al. merely describes coating a substrate such as SiC and cordierite with tin oxide. Thus, the structure recited in Claim 1 is clearly distinguishable from Iseli et al. and Clough et al.

Lange et el. is directed to a shaped and fired TiO₂ article and cited to show “a titania sol with iron oxide as a pigment.” Hence, Lange et el. does not teach or suggest “a catalyst coat layer comprising at least one oxide ceramic and a catalyst active component and coating the porous ceramic carrier, the catalyst coat layer further comprising a first substance having a thermal conductivity higher than the oxide ceramic, a second substance having a refractive index larger than a refractive index of the oxide ceramic, or a colored pigment, wherein the porous ceramic carrier has a porosity of 40-80% and a thermal conductivity of a filter body comprising the porous ceramic carrier and the catalyst coat layer is set to be 0.3-60 W/mk” as recited in amended Claim 1, and the structure recited in Claim 1 is clearly distinguishable from Lange et el.

Because none of Takeuchi, Iseli et al., Clough et al. and Lange et el. discloses the catalyst coat layer as recited in amended Claim 1, even the combined teachings of these cited references would not render the structure recited in Claim 1 obvious.

For the foregoing reasons, Claim 1 is believed to be allowable. Furthermore, since Claims 1-6 and 8-12 depend directly or indirectly from Claim 1, substantially the same arguments set forth above also apply to these dependent claims. Hence, Claims 1-6 and 8-12 are believed to be allowable as well.

In view of the amendments and discussions presented above, Applicants respectfully submit that the present application is in condition for allowance, and an early action favorable to that effect is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Akihiko Yamazaki
Attorney of Record
Registration No. 46,155

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

AY/mda
I:\ATTY\AKY\25s\259205\259205US_AME_MODIFIED.DOC